

1648#13



1600

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/029,840A

DATE: 10/16/2002

TIME: 15:32:10

RECEIVED

OCT 25 2002

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TECH CENTER 1600/2900

3 <110> APPLICANT: Meng, Xiang-Jin
 4 Haqshenas, Gholamreza
 5 Huang, Fang-Fang
 7 <120> TITLE OF INVENTION: AVIAN HEPATITIS E VIRUS, VACCINES AND METHODS OF PROTECTING
 8 AGAINST AVIAN HEPATITIS-SPLENOMEGALY SYNDROME AND MAMMALIAN
 9 HEPATITIS E
 11 <130> FILE REFERENCE: AM100389
 13 <140> CURRENT APPLICATION NUMBER: 10/029840A
 14 <141> CURRENT FILING DATE: 2001-12-31
 16 <160> NUMBER OF SEQ ID NOS: 25
 18 <170> SOFTWARE: PatentIn version 3.1
 20 <210> SEQ ID NO: 1
 21 <211> LENGTH: 3946
 22 <212> TYPE: DNA
 23 <213> ORGANISM: Hepatitis E virus
 25 <400> SEQUENCE: 1

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30	tgattatccg	actatcacca	caaccagtag	ggtgctgcgg	tctgttgtgt	ttaccgggtga	180
32	aaccattggt	cagaagatag	tgtttaccca	ggtggccaag	cagtcgaacc	ccgggtccat	240
34	aacgggtccat	gagggcgagg	gcagtacttt	tgatcagact	actataatcg	ccacgttaga	300
36	tgctcgtggc	cttatagctt	catctcgcgc	gcatgccata	gttgcgctaa	cccgccaccg	360
38	ggagcgtgtg	agtgtgattg	atgttggtgg	ggtgctggtc	gagattggag	ttactgatgc	420
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44	tgtagcggcg	gtgttaacag	ctgaggcgat	tgggcatgcg	ccccttgaat	tggccgccat	600
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159 <210> SEQ ID NO: 2

160 <211> LENGTH: 146

161 <212> TYPE: PRT

162 <213> ORGANISM: Hepatitis E virus

164 <400> SEQUENCE: 2

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171          20         25         30
174 Asp Val Cys Ile Phe Leu Arg Thr Asp Tyr Pro Thr Ile Thr Thr Thr

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175          35          40          45
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182 Lys Ile Val Phe Thr Gln Val Ala Lys Gln Ser Asn Pro Gly Ser Ile
183 65          70          75          80
186 Thr Val His Glu Ala Gln Gly Ser Thr Phe Asp Gln Thr Thr Ile Ile
187          85          90          95
190 Ala Thr Leu Asp Ala Arg Gly Leu Ile Ala Ser Ser Arg Ala His Ala
191          100          105          110
194 Ile Val Ala Leu Thr Arg His Arg Glu Arg Cys Ser Val Ile Asp Val
195          115          120          125
198 Gly Gly Val Leu Val Glu Ile Gly Val Thr Asp Ala Met Phe Asn Asn
199          130          135          140
202 Ile Glu
203 145
206 <210> SEQ ID NO: 3
207 <211> LENGTH: 439
208 <212> TYPE: DNA
209 <213> ORGANISM: Hepatitis E virus
211 <400> SEQUENCE: 3
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214 taccagctgg cgcaccgtat cccaccgttg cccttgggac gtttgtatat ttttcgtac 120
216 tgattatccg actatcacca caaccagtag ggtgctgcgg tctgttgtgt ttaccggtga 180
218 aaccattggt cagaagatag tgtttaccca ggtggccaag cagtcgaacc ccgggtccat 240
220 aacgggtccat gaggcgcagg gcagtacttt tgatcagact actataatcg ccacgttaga 300
222 tgctcgtggc cttatagctt catctcgcgc gcatgccata gttgcgctaa cccgccaccg 360
224 ggagcgtgt agtgtgattg atgttggtgg ggtgctggtc gagattggag ttactgatgc 420
226 catgtttaac aatatcgaa 439
229 <210> SEQ ID NO: 4
230 <211> LENGTH: 483
231 <212> TYPE: PRT
232 <213> ORGANISM: Hepatitis E virus
234 <400> SEQUENCE: 4
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240 Asp Asp Thr Val Asp Gly Leu Leu Asp Ile Pro Pro Ala His Thr Asp
241          20          25          30
244 Val Ala Ala Val Leu Thr Ala Glu Ala Ile Gly His Ala Pro Leu Glu
245          35          40          45
248 Leu Ala Ala Ile Asn Pro Pro Gly Pro Val Leu Glu Gln Gly Leu Leu
249          50          55          60
252 Tyr Met Pro Ala Arg Leu Asp Gly Arg Asp Glu Val Val Lys Leu Gln
253 65          70          75          80
256 Leu Ser Asp Thr Val His Cys Arg Leu Ala Ala Pro Thr Ser Arg Leu
257          85          90          95
260 Ala Val Ile Asn Thr Leu Val Gly Arg Tyr Gly Lys Ala Thr Lys Leu
261          100          105          110
264 Pro Glu Val Glu Tyr Asp Leu Met Asp Thr Ile Ala Gln Phe Trp His
265          115          120          125

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268 His Ile Gly Pro Ile Asn Pro Ser Thr Leu Glu Tyr Ala Glu Met Cys
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272 Glu Ala Met Leu Ser Lys Gly Gln Asp Gly Ser Leu Ile Val His Leu
273 145      150      155      160
276 Asp Leu Gln Asp Ala Asp Cys Ser Arg Ile Thr Phe Phe Gln Lys Asp
277      165      170      175
280 Cys Ala Lys Phe Thr Leu Asp Asp Pro Val Ala His Gly Lys Val Gly
281      180      185      190
284 Gln Gly Ile Ser Ala Trp Pro Lys Thr Leu Cys Ala Leu Phe Gly Pro
285      195      200      205
288 Trp Phe Arg Ala Ile Glu Lys His Leu Val Ala Gly Leu Pro Pro Gly
289      210      215      220
292 Tyr Tyr Tyr Gly Asp Leu Tyr Thr Glu Ala Asp Leu His Arg Ser Val
293 225      230      235      240
296 Leu Cys Ala Pro Ala Gly His Leu Val Phe Glu Asn Asp Phe Ser Glu
297      245      250      255
300 Phe Asp Ser Thr Gln Asn Asn Val Ser Leu Asp Leu Glu Cys Glu Leu
301      260      265      270
304 Met Arg Arg Phe Gly Met Pro Asp Trp Met Val Ala Leu Tyr His Leu
305      275      280      285
308 Val Arg Ser Tyr Trp Leu Leu Val Ala Pro Lys Glu Ala Leu Arg Gly
309      290      295      300
312 Cys Trp Lys Lys His Ser Gly Glu Pro Gly Thr Leu Leu Trp Asn Thr
313 305      310      315      320
316 Val Trp Asn Met Thr Val Leu His His Val Tyr Glu Phe Asp Arg Pro
317      325      330      335
320 Ser Val Leu Cys Phe Lys Gly Asp Asp Ser Val Val Val Cys Glu Ser
321      340      345      350
324 Val Arg Ala Arg Pro Glu Gly Val Ser Leu Val Ala Asp Cys Gly Leu
325      355      360      365
328 Lys Met Lys Asp Lys Thr Gly Pro Cys Gly Ala Phe Ser Asn Leu Leu
329      370      375      380
332 Ile Phe Pro Gly Ala Gly Val Val Cys Asp Leu Leu Arg Gln Trp Gly
333 385      390      395      400
336 Arg Leu Thr Asp Lys Asn Trp Gly Pro Asp Ile Gln Arg Met Gln Asp
337      405      410      415
340 Leu Glu Gln Ala Cys Lys Asp Phe Val Ala Arg Val Val Thr Gln Gly
341      420      425      430
344 Lys Glu Met Leu Thr Ile Gln Leu Val Ala Gly Tyr Tyr Gly Val Glu
345      435      440      445
348 Val Gly Met Val Glu Val Val Trp Gly Ala Leu Lys Ala Cys Ala Ala
349      450      455      460
352 Ala Arg Glu Thr Leu Val Thr Asn Arg Leu Pro Val Leu Asn Leu Ser
353 465      470      475      480
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360 <210> SEQ ID NO: 5
361 <211> LENGTH: 1450
362 <212> TYPE: DNA
363 <213> ORGANISM: Hepatitis E virus

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365 <400> SEQUENCE: 5

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370 ggcgattggg catgcgcccc ttgaattggc cgccataaat ccaccggggc ctgtattgga      180
372 gcagggccta ttatacatgc cggccaggct tgatgggcgt gatgagggtg ttaagctcca      240
374 gctgtcggat actgtacact gccgcctggc tgcaccact agccgtcttg cggtgattaa      300
376 cacattgggt gggcggtacg gtaaagccac taagctgcct gaggttgaat atgacttaat      360
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382 ggatttacag gatgctgatt gttctcgcac aacattcttc cagaaggact gcgctaaatt      540
384 tacgctggat gacctgttg cacacggtaa agtgggacag gggatatctg cgtggccgaa      600
386 aactttgtgt gcacttttcg gcccctggtt ccgggctata gagaagcacc ttgtggctgg      660
388 gttaccccca ggttattact atggggacct gtacacggaa gccgatctgc atcgttctgt      720
390 gctttgcgcg cctgctggtc acctgtttt tgagaatgat ttctcagagt ttgactcaac      780
392 gcagaataat gtgtcccttg atctcgaatg tgaattgatg cgcaggtttg ggatgcccg      840
394 ttgatggta gccttgatcc atctgttcg atcatactgg ctcttggttg ccccgaaaga      900
396 agcccttcgt ggctgttgga aaaaacactc tggtgagccg ggcacccttt tgtggaatac      960
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417 <210> SEQ ID NO: 6

418 <211> LENGTH: 606

419 <212> TYPE: PRT

420 <213> ORGANISM: Hepatitis E virus

422 <400> SEQUENCE: 6

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428 Ser Arg Gly Ser Gln Thr Leu Pro Ala Gly Gly Arg Arg Gly Gln Arg
429          20          25          30
432 Arg Arg Asp Asn Ser Ala Gln Trp Ser Thr Gln Gln Arg Pro Glu Gly
433          35          40          45
436 Ala Val Gly Pro Ala Pro Leu Thr Asp Val Val Thr Ala Ala Gly Thr
437          50          55          60
440 Arg Thr Val Pro Asp Val Asp Gln Ala Gly Ala Val Leu Val Arg Gln
441 65          70          75          80
444 Tyr Asn Leu Val Thr Ser Pro Leu Gly Leu Ala Thr Leu Gly Ser Thr
445          85          90          95
448 Asn Ala Leu Leu Tyr Ala Ala Pro Val Ser Pro Leu Met Pro Leu Gln
449          100         105         110
452 Asp Gly Thr Thr Ser Asn Ile Met Ser Thr Glu Ser Ser Asn Tyr Ala
453          115         120         125
456 Gln Tyr Arg Val Gln Gly Leu Thr Val Arg Trp Arg Pro Val Val Pro
457          130         135         140

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